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Subject: The Supply System of the Con	struction Industry,	25X 25X
1. The Plan of Supply during th	e Period 1958- 1959 /965	
According to a generally accept	ed principle in Poland, the supply of build-	
ing materials is the basic factor in	planning construction and investments. The	
financial means and labor force are o	f course very important, but the first and	
the most important element is building	g materials.	
Every plan concerning the constr	uction industry and its development starts with	ı
the preparation of a balance sheet of	the building materials. The realization of the	Э
investment plan and of the constructi	on plan depends on securing the necessary	
amount of building materials.		
In this respect great difficultie	s may be expected for the 1958-1965 Plan of	
Supply and there is a double risk for	the implementation of the long range con-	
struction plan.		
First of all the planned supply	of materials does not entirely meet the demands	3
of the construction industry, and	there is an average	25 X 1
deficit of between 5-10%. (it differs	in different materials).	
Secondly the planned supply of b	uilding materials will not be implemented as is	3
shown in detail in the quoted example	s of two basic materials cement and gravel on	
page \$\text{9}, and the deficit to be caused	d by non-implementation of planned production	
of the building materials is estimated	at about 10% of the planned gos	_{ils.} 25X
On the whole	the construction plan 1958-1965 in reali	ty,
will only be 85% fulfilled.		25X1

In connection with this some attention should be paid to the falsification of the official statistics of the Polish Main Statistical Administration (GUS). One

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can read in the GUS bulletins that the construction plan for a given year was implemented and even exceeded, but this is the implementation of the construction plan in zlotys. It indicates that all allocated funds were spent and even that the expenditure was higher than planned, but this does not prove that all the tasks were really implemented.

It is quite obvious to all employed in the construction industry that there is a shortage of building materials which does not permit the implementation of the construction tasks. How is it possible to exceed the construction plan and to build more than planned? It is always possible to spend the allocated money and more through deficits of the construction enterprises. The shortage of building materials is one of the principal causes for exceeding the costs and spending more money or just wasting funds.

an example from the GUS communique about the implementation of the National Economic Plan for 1958:

..... The investments in the socialized economy amounted to about 56 billion zlotys i.e. about 3.0 billions (5.4%) more than in 1957, which indicates that the appropriations of the National Economic Plan were exceeded by 4%."

And in other parts of the same communique one finds in the paragraph "Investments and Construction" the following:

...."Although the financial means assigned for investments were used up, the tasks of turning some investment projects over for use were nevertheless not realized, namely the eight Marten furnaces in the Nowa Huta Steel Works, the fifth coke battery in the Coke-Chemical establishment "Wiktoria" in Walbrzych and the copper foundry in the Legnica Metallurgical Establishment were not yet put into operation...

..... A mill in the cement factory Nowa Huta was not finished

.... The electrification of the railway sectors Katowice-Szczakowa, Mydlniki-Nowa Huta,

Mydlniki-Prokocim was not completed...

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.... According to initial reports 188,000 rooms of the planned 194,000 rooms within the socialized economy were given for use..."

As it is seen from the above the construction plan was far from being implemented in 1958 in housing as well as in industrial construction, engineering-railroad construction, and other sectors not mentioned in the communique.

In spite of that, when the above mentioned construction projects were finished with almost a year's delay, one could read of great praise and rewards for the completion of the project's before the fixed time.

This is a common phenomenon- the implementation and exceeding of the financial construction plan, or as is said in Poland, the implementation of the outlays plan without the implementation of the proper plan and proper tasks of the construction industry. It should be added that even what is reported as implemented and given for use is not entirely finished. The apartment houses which are already inhabited are not plastered outside, there is a shortage of bath tubs, the interior of the retail shops on the first floor is not finished, the yards not cleared; in factories there is no ventilation system installed, there is no reserve electric power supply, which is obligatory, and, and as a result of these conditions the factory does not work at full capacity for several months.

All these unfinished construction projects and shortages and deficiencies amount on average from 10-15% of the total planned work and represent a total loss, because the projects cost more by this 10-15%. Finally in these additional costs must be included the lowering of quality of construction, because even what is built is not according to quality specifications.

The new Construction Plan 1958-1965 voted at the III Party Congress in March 1959 did not bring an improvement in this respect. There will again be an insufficient amount of building materials and again the plan of completion of construction projects will not be implemented from year to year while the financial plan, i.e., the outlay plan will be realized. This lying and lack of reality is a chronic phenomenon well known and not remedied because its roots go deep into the economic system of communism.

During the years 1956-1960 investments, in 1958 prices, amounted to 345 million zlotys. For the years 1961-1965 it is planned to invest, according to III Party Congress, 514 million zlotys. In addition, according to resolutions of Party Plenum in June 1959 for the development of agriculture were added

18 million zlotys

Total 532 million zlotys

which represents the increase of investments by almost 70%.

The question remains as to how the production of building materials will increase.

The chairman of the Economic Planning Commission of the Ministers Council,

Jedrychowski, in his speech at the III Party Congress on 12 March 1959 said that

the production of building materials during the years 1958-1965 was and will be as follows:

	Unit of Measure 195	<u>1960</u>	<u> 1965</u>	<u>1965</u> (1960€100) 1960
a. Cement	million tons 5.1	6.6	10.0	150
b. Wall Materials	billion pieces 4.5	6.0	9.4	156
c. Roofing tiles	million pieces 117	136	261 app	rox. 200
d. " "Eternit"	million sq.m. 6.9	8.8	10	125
e. Lumber	" cu.m.			79

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Even these fragmentary figures given by Jedrychowski indicate that the supply of such basic material as lumber will be 21% lower in 1965 than in 1960. The increase of production of other basic building materials such as cement and wall materials is only 50-5%, which is not sufficient to meet the needs of increased investments and assure adequate reserves.

The government demands that the construction industry should reduce the use of wall materials and cement per unit in order to save building materials, and as a reason for it stated that a great amount of materials is wasted. This is true, but the government does not change the basis of this wastefulness which is caused by the shortage of materials, which still hampers the saving of materials.

There will be shortages even of such materials as aggregates, of which there is plenty in Poland, because of transportation difficulties. According to an article written by B. Kierski & M. Zubelewicz "Major directions in the production of construction materials in the current Five Year Plan" published in Materialy Budowlane No 10, in October 1957, the planned production of aggregates is as follows:

			1957	1960	1965	1965 1960
Gravel natural- million	tons		17.0	20.0	28.0	140
Broken or crushed stone million tons			6.7	9•5	14.0	148
Heath slag	11	11	0.7	1.8	2. 5	139
Foaming slag (Pumex)	11	11	0.0	0.3	3.0	1000
Granulated slag	tt	11	0.5	1.5	2.4	160
	Total		24.9	33.1	49, 9	150

The production of construction will be in 1965 \$\ \text{46-49%}\$ higher than in 1960 and the supply of aggregate will increase theoretically only by 50% but practically the planned production of broken or crushed stone and foaming slag is entirely impossible. More detailed information about aggregate will be given later on (see page 14)

transport of

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The bulk set materials for the construction industry is becoming one of the most difficult problems for the construction industry in connection with the enormous increase in the volume of building materials which must be transported. The railways are unable to cope with this new burden alone. Motor transport is insufficient and inland shipping was not expanded. It is estimated that the following quantities of building materials were and must be transported:

in	1957	45	million	tons
	1960	65	11	.11
	1965	100	11	11

Even more difficult is the situation of the flooring materials. The plan of production of flooring materials was as follows (in million square meters):

1957 11.2 1958 12.8 1959 14.1 1960 17.9 1965 20.0

The plan for the year 1960 is not realistic. It is based on the assumptions that the chemical industry will supply the sufficient quantity of synthetic flooring materials. The chemical industry has started the production of synthetic flooring materials, but it needs time, and the plan figures for the year 1960 will be, at best, reached in 1961-65. The situation in flooring materials is specially hampered by the reduced supplies of timber. The government wants to reduce the cutting of forests which is at present higher than the yearly growth, and it also wants to give more timber to rural areas. About 17 million cubic meters are cut yearly, and growth is only about 12 millions. Of these, 17 million was used or planned for the construction industry:

in 1955 3.26 million cubic meters
 1960 3.0 " " "
 1965 2.37 " " "

Therefore the amount of "saving" timber in the construction industry is enormous, which means a smaller allocation of timber for increased production of construction.

An important deficit is also visible in roofing materials where there is an acute shortage of roofing tiles.

In 1958 117 million units of roofing tiles were produced For 1960 136 " " " " are planned For 1965 261 " " " " " " "

This amount is insufficient for both the needs of urban and rural areas, where work is vital.

In connection with the new agriculture program published in June 1959, a great increase in production of drain pipes is foreseen. In 1958 about 37 million units of drain pipes were produced and for 1965 production of 360 million units is planned, i.e. almost 10 times as much. The drain pipes, however, are produced from good quality clay as are roofing tiles, and the program of increased production of drain pipes will hamper the production of roofing tiles. For this reason special difficulties in supplies of roofing tiles should be foreseen in the plan 1961-1965.

A still greater shortage will occur in plumbing and installation materials for which there is the following plan:

	Ac	tual Production 1957	Planned Pr 1960	oduction 1965
a.	Radiators and rib-pipes-Thous of sq.m.	ands 1,060	1,700	2,600
ъ.	Boilers -Thousands of sq.m.	205	295	455
c.	Pipes and accessories for wat supply and sewer systems Thousand tons	95	160	245
	of which asbestos-cement pipe Thousand tons	es	25	32
đ.	Porcelain plumbing accessories " "		7.6	12

The above plan has no chance for full realization and besides is also below the existing requirements. It does not take into account the immense requirements for

repairs. For this reason the plan of supplies of construction materials for the period 1959-1965 must be considered insufficient for the construction industry, and for the building materials industry the plan will produce great strains and its realization is also threatened. The only solution is to import deficit installations, flooring and roofing materials, and to increase production of the building materials industry, chemical industry, timber and paper industry, heavy industry and transportation facilities in order to secure the requirements of the construction industry and the start of private and small industry on a larger scale. This has not been done and for this reason the supply situation is still very difficult and causing great losses for the construction industry as well as for the entire national economy.

the next section describes the actual situation of two building	25X1 25X1
materials, cement and aggregates, in 1959 in detail to illustrate the supply situation	
of the construction industry in Poland.	

2. Examples of current difficulties in supply of building materials in Poland:
Cement

The shortage of cement is chronic although the cement industry is one of the best industries in Poland and the government has, since 1955, allocated large funds for the expansion of cement factories. However this policy of development of the cement industry was started too late and for that reason it is difficult to increase production at the same pace as the increasing requirements of cement. Besides the policy of purchasing machinery was improper.

A characteristic example is a new cement factory "Odra" in Opole. The machines delivered from Czechoslovakia between 1951-1953 are not good, and the cement plant Odra has not yet reached its planned production capacity. Another example is the cement plant "Wiek II" in Ogrodzieniec. It was built from 1953 to 1959. The delays were caused mainly by the fact that the Czech machinery and equipment was no good and it

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was necessary to change them and supplement them. Still another example is the cement plant "Rejowiec". It is a combine composed of three factories. Rejowiec I was built in 1924, producing 100,000 tons of cement. It was quickly reconstructed and expanded after WWII to a capacity of 150,000 tons. Rejowiec II was constructed from 1953-1956, based on documentation and machinery supplied by 25X1 and is working very well producing 350,000 tons of very good cement yearly. Rejowiec III was constructed in 1956-1958 based on documentation and machinery supplied by the East German firm Polisius in Magdeburg as indemnity and war reparations. It has a 150,000 ton yearly capacity but there are constant difficulties with the machinery, and it works poorly.

In 1958 according to a notice in the <u>Fundamenty</u> No 21, May 1959, the Réjowiec combine produced 646,572 tons and its production plan for 1959 is 15% larger. This cement combine supplies about 15% of the total cement in Poland.

The following new cement plants were built in Poland from 1950 to 1959:

Cement Plant Odra

in Opole

•" Wierzbica

near Radom

" Pokoj

in Rejowiec

Clinker " Wiek II

in Ogrodzieniec

Cement Mill Zeran

in Warsaw

" " Nowa Huta

" Nowa Huta, just recently started production

Of the above, Wierzbica was built in three years, Rejowiec four years, Zeran five Years, Wiek II seven years, while the normal construction time should be two years. (A cement plant in Louisiana, USA with 350,000 tons yearly capacity was built in 20 months.)

The long range national plan 1959-1965 foresees:

-expansion of Wierzbica cement plant to 700,000 ton production capacity

__ " "Chelm " " 800,000 " " "

- Completion of stage II and III of Nowa Huta cement mill to 800,000 capacity

- expansion of two old cement plants Saturn and Wysoka

- to build a new cement plant in Nowiny near Kielce

- " " " " near Konin

- to build " " near Tarnobrzeg

- " " " " in Czestochowa- Rudniki

_ " " " " in Dzialoszyn

- to modernize the prewar cement plants; Grodziec, Szczakowa, Wejherowo, Piast Podgrodzie, Groszowice and Pszemko.

It is obvious that the six cement plants which were built after the WWII could not satisfy the requirements of such a devasted country as Poland and that the difficulties in cement will continue for some time.

According to the article "Cement and Dollars" published in <u>Fundamenty</u>, 21 May 1959, the use of cement increased during the years 1955-1959 by 57% but the production of cement only by 33%. In order to cover this deficit Poland reduced its net export.

In 1955 net export amounted to 580,000 tons

1956 " " " 420,000 "

But in 1957 " " was minus 55,000 tons (imports exceeded exports)

" 1958 " " was plus 70,000 tons (exports exceeded imports again)

The Polish government balanced the export and import of cement in 1958 but the year 1959 shows difficulties in this field.

The plan for the year 1959 foresees only a 2% increase of cement production because the investments in the cement plants Nowa Huta and Chelm will not be completed until 1960 and 1961 when there will be a jump in production. In the meantime, the requirements for 1959 are 11% higher than in 1958. The deficit is to be covered by imports of 550,000 tons but as is said in the above quoted article in Fundamenty:

....."Foreign trade did not implement its planned tasks. Also the planned deliveries for the second and third quarter were not secured by contracts in proper quantity... The situation has worsened very much during the last weeks. The "interventional" reserves were violated in individual construction associations and the stocks grew smaller, to the amount of three days use..."

The production potential of the Polish cement industry is represented at present, during the year 1959-1960, by cement plants having a total of 76 kilns, with a total burning capacity of 5,950,000 tons of clinker, while there is now a shortage of milling capacity. The total production of cement in 1960 will amount to 6,700,000 tons. The difference- 6,700,000 minus 5,950,000 will be covered by the production of cement from granulated slag or by the addition of slag to the clinker.

According to the resolutions of the III Party Congress the production of cement should amount to:

6,500,000 tons in 1960 and

10,000,000 " " 1965

In the past years the production of cement amounted to:

4,035,000 tons in 1956 4,487,000 " " 1957 5,100,000 " " 1958 5,300,000 " " 1959 s

As is seen, during the period 1958-1965 the increase in yearly production should be about 4,900,000 tons of cement. According to the article written by J.Bolkowski and J. Sosinski "About the Improvement of Investment Activity in Cement Industry" published in Gospodarka Planowa, No 5, 1959, on page / 4 the average yearly production of cement for one cement factory amounted or will amount to:



160,000 tons in 1939 180,000 " " 1950 245,000 " " 1955 250,000 " " 1956 275,000 " " 1957 " 1958 300,000 " 320,000 " " 1959 375,000 " " 1960 450,000 " " 1965

The average production capacity of the cement factories built during the

tons yearly. Thus, in order to obtain the planned increase of 4,900,000 tons of cement it would be necessary to build 14 cement factories, i.e. an average of two new cement factories should be given for use yearly.

Taking into account the construction time (which as already explained above on page 9 is a minimum of three years in Poland) it would be necessary to have six cement plants under construction each year in order to put two into use every year. However, in 1959 there are only three large projects under construction: Chelm, Nowa Huta and Wierzbica which is being expanded and of there is some finishing work on several other cement plants already completed and producing like Zeran, WiekII; Rejowiec III; but these projects are already regarded as completed in 1958.

Instead, altogether 10 cement plants (7 new and 3 expanded) are to be built, instead of 14. Of course, by building larger plants it will be possible to obtain the necessary production capacity but, in spite of that the entire goal of 10,000,000 tons production capacity in 1965 is very much strained, and lacks a sufficient basis for its realization unless the tempo of investments for cement plants is notably increased.

this production capacity of 10 million tons will be

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achieved later, probably in 1966/1967 instead of in 1965.

The shortage of cement will be felt mainly in construction in rural areas and in allocations for the free market, i.e. for individual housing construction and repairs.

Cement is one of the most important materials for the peasants and the shortage of cement during the period 1945-1954 caused serious damage to the farms. Since 1954 there has been some improvement in supplies for the rural market.

The allocation of cement for villages during the year: 1950-1958 was as follows:

110,000 tons in 1950

114,000 " " 1951

121,000 " " 1952

310,000 " 1953

369,000 " " 1954

426,000 " " 1955

617,000 " " 1956

1,012,000 " " 1957

1,104,000 " " 1958

Some

After October 1956 there was a great increase in supplies of cement for villages, from 617,000 tons in 1956 to more than 1,000,000 in 1957. In order to give these additional 400,000 tons of cement to the villages, the government, and Gomulka personally, decided to stop the export of cement in 1957, and as a result of this decision imports of cement exceeded exports by 55,000 tons in this year.

villages needed, and were able and willing to buy at least 2,000,000 tons of cement yearly. So the allocation of the above mentioned 1,100,000 tons in 1958 was still

calculations made in 1957 have shown that the Polish

insufficient, although a notable improvement and three times higher than in 1954.

It is foreseen that the allocation of cement for villages will amount to about

1,400,000 tons in 1960 and

2,500,000 - 3,000,000 tons in 1965

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Aggregates

In order to explain better the complicated problem of supply of aggregates,

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there are three degrees of shortage of building materials:

- a. <u>Complete lack</u> of materials such as e.g., installation equipment, cables, outside wall covering materials, etc. and every one understands that these materials will not be available for some years. It is known that the arrears in outside plastering of buildings are growing every year. The new houses are just left unplastered outside, and not much can be done about it.
- b. Shortage of normal building materials such as lime and cement, resulting in strain in planning. Here a balance is achieved only on paper, and this causes periodical and seasonal shortages. It is not only the usual 5-10% deficit of needed materials, but also these seasonal shortages, lack of documentation, seasonal changes in the level of output of construction aggravate the difficulties and increase the amount by which the plan is unfulfilled. The shortage of 5-10% of building materials makes construction more expensive and difficult, causes delays which the construction industry tries to overcome by redistribution, which is only partially successful.
- c. <u>Deficit materials</u>. There are materials of which there is no real shortage in the country, e.g. aggregates, but in spite of that the supply is bad because of transportation difficulties. The article written by Z. Ozowski and published in <u>Fundamenty</u>, 18 June 1959, under the title "Gravel and the Facts" illustrates these difficulties even in building materials in which there is no absolute shortage. It describes the situation in gravel which is repeated every year, and the mechanism of planning and balancing of materials as well as the arbitrary system of closing the balance sheet on paper.
 - In connection with the shortage of gravel a number of construction works on

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the most important projects in the capital were brought to a halt...."

....."At the conference of the District Administration of Trade Unions of the Construction Industry and Building Materials Industry, director Rojek from the transportation department of the Ministry of Construction and Building Materials Industry comforted all present that the situation in Warsaw is not the worst, because, e.g., in the Lublin voivodship, seven percent of construction projects are idle for the same reason. Meanwhile according to the statement of the representative of the Association for the Production of Aggregates, great amounts of gravel are waiting at the open depots because of shortage of transportation...."

Building Materials Industry requested a guaranty of transportation for 17.5 million tons of aggregates. The Economic Planning Commission regarded this request as very excessive and fixed a general plan of transportation of 16 million tons of aggregates, of which 12 million tons were for the construction industry. This decision jeopardized the realization of tasks of the construction industry as specified in the National Economic Plan. The Ministry protested and since last year conversations about this problem have been going on. The Economic Planning commission admitted that an error was made. In connection with this a draft was prepared by order of the Chairman of the Minister's Council, according to which the transportation of aggregates in 1959 for the construction industry was to be increased to 14.9 million tons. The Minister of Transportation opposed this decision, stating that the railways which have insufficient investments are unable to increase transportation to such an extent... The order was not signed.

.....The State Economic Planning Commission is well aware of the transportation difficulties. They will exist until 1965 when the needs of transportation will be balanced with the real possibilities. This is however only in theory because the State

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Economic Planning Commission assumes that the transportation of aggregates for the construction industry will amount only to seven million tons in 1965, and the Ministry of Construction and Building Materials Industry expects that its needs will amount to 20 million tons...."

The author of the article, Gzowski, represents the point of view of the Ministry of Construction and Building Materials Industry but he is not fully objective. If the State Economic Planning Commission allocated 12 million tons for 1959 for the construction industry, and the construction industry needs at least 14.9 million tons, this is not such a big error in calculation of needs because, as was already mentioned, the planning of needs even on the basis of coefficients can result in an error not greater than 5-6%, but not as in this case of about 25%.

This big difference arises from the fact that the State Economic Planning Commission demands that the Ministry of Construction exploit its own gravel pits and quarries, transport the gravel by its own trucks, and not ask long distance transportation on the railroads. The Ministry of Construction and Building Materials Industry does not open enough gravel pits and its reluctance to use its own trucks, and this causes continuous quarrels.

Of course, the suggestion that the construction industry transport only seven million tons of aggregates by rail out of 22 million tons to be used in 1965 is entirely unrealistic.

The problem of transportation of gravel has been discussed every year and has never been so lived satisfactorily. The quoted example shows that the problem is still unsolved and even in 1965 will remain a painful one for the construction industry.

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3. Conclusion

Besides the two examples of cement and aggregates, the situation of wall, flooring, roofing, outside wall covering and installation materials is also difficult. On the basis of the examples described in the preceding paragraph, it is understandable that, in spite of various measures which were undertaken, the government has not made any further decentralization of the supply system.

Therefore, the distribution of the following building materials is still reserved to the Ministers Council, i.e. to the Economic Planning Commission at the Ministers Council. According to the article of J. Stepinski published in "Inwestycje i Budownictwo", No 9/1958, the Ministers Council allocates:

cement

bricks

hollow ceiling bricks

roofing tiles

terracotta flooring tiles

glazed wall tiles

timber (boards)

mining timber (pit wood, pit props)

rolled iron (steel)normal

rolled iron (steel) special, shaped

steel pipes

Special materials imported and home produced e.g. fireproof, acid resistant pipes, colored metals, and products manufactured from them.

The Economic Planning Commission uses the individual ministries to prepare the balance sheets for various materials, and the ministries are entitled to allocate the some materials which are not part of the stocks reserved for Economic Planning Commission decision. As far as the consumer is concerned, it is central distribution whether this balance sheet is prepared by the Economic Planning Commission or by a ministry directed by the Commission.

Various ministries distribute (allocate) the following building materials:

- The Ministry of Heavy Industry:

 cast and forged iron

 steel wire and ropes

 cables, overhead cables, wires and electrotechnical materials
- The Ministry of Construction and Building Materials:

lime

tiles

glass

- The Ministry of Transportation crushed stone
- -The Ministry of Forestry and Timber Industry:

 sawmill timber and wood from deciduous trees

 telephone and high tension transmission poles
 staves
 plywood and veneer

As is clear from above list, the building materials which are centrally distributed include almost all the basic materials necessary for the building industry. But even for such materials which are not allocated such as sand, gravel, slag etc, there is central allocation of railroad freight cars by the Ministry of Transportation, so even these materials are also, to some extent, centrally distributed materials.

All: this clearly shows the supply difficulties encountered by the construction industry in Poland.